



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBT18520
Job Sheet 200573



Part No: RBT18520

Job Qty: 1 pcs

Part Name: Main Rotor Damper Load Test Device



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 9/12/19

Job Tracking No:

Due Date: 9/30/19

Created By: Marie Lajeunesse

Type: SOLD

Description: ORDER 19497

Note: DWG RBT18520 Rev Q IPP REV A 18.02.07 NEW ISSUE RQ VERIFIED BY DP/IPP Rev. B 19.02.22 drawing revision DP Verify DD

Ship Via:

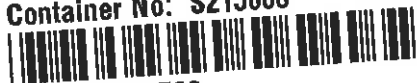
Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Small Fab - 1	1 pcs	9/30/19		0.00	0.33	Small Fab - 1		MLL
							Small Fab - 2		
							Small Fab - 3		
							Small Fab - 4		
							Small Fab - 5		
							Small Fab - 6		
							Small Fab - 7		
							Small Fab - 8		
110	QC 5	1 pcs	9/30/19		0.00	0.00	QC 5 - 10		
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 43		
							QC 5 - 49		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
							QC 5 - 9		
							QC 5 - 50		
							QC 5 - 30		
							QC 5 - 40		
							QC 5 - 61		
							QC 5 - 81		
120	External Load - 2 - B4B	1 pcs	9/30/19		0.00	1.00	External Load - 1 - B4B		MLL
							External Load - 2 - B4B		
							External Load - 3 - B4B		



Container No: S215006



Part: RBT18520

Job No: 200573

Serial No/Batch: S215006

Revision: Q

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 09/19/19

DAS
40
9-89

SEP 19 2019

Plex 9/12/19 1:10 PM Dart.lajeunesse.marie

125 QC 5

1 pcs

9/30/19

0.00 0.00

QC 5 - 10

QC 5 - 12

QC 5 - 17

QC 5 - 18

QC 5 - 19

QC 5 - 22

QC 5 - 24

QC 5 - 3

QC 5 - 43

QC 5 - 49

QC 5 - 51

QC 5 - 58

QC 5 - 68

QC 5 - 9

QC 5 - 50

QC 5 - 30

QC 5 - 40

QC 5 - 61

QC 5 - 81

DAS

OCT 02 2019

9-89

130 Packaging 3-1 - Stock - B4B 1 pcs

9/30/19

0.00 0.00

Packaging 3 - 1 - B4B

Packaging 3 - 2 - B4B

Packaging 3 - 3 - B4B

Packaging 3 - 4 - B4B

Packaging 3 - 5 - B4B

Packaging 3 - 6 - B4B

Packaging 3 - 7 - B4B

Packaging 3 - 8 - B4B

Packaging 3 - 9 - B4B

Packaging 3 - 10 - B4B

Packaging 3 - 11 - B4B

Packaging 3 - 12 - B4B

Packaging 3 - 13 - B4B

Packaging 3 - 14 - B4B

Packaging 3 - 15 - B4B

Packaging 3 - 16 - B4B

Packaging 3 - 17 - B4B

Packaging 3 - 18 - B4B

Packaging 3 - 19 - B4B

Packaging 3 - 20 - B4B

Packaging 3 - 21 - B4B

Packaging 3 - 22 - B4B

Packaging 3 - 23 - B4B

Packaging 3 - 24 - B4B

Packaging 3 - 25 - B4B

Packaging 3 - 26 - B4B

Packaging 3 - 27 - B4B

Packaging 3 - 28 - B4B

Packaging 3 - 29 - B4B

Packaging 3 - 30 - B4B

Packaging 3 - 31 - B4B

Packaging 3 - 32 - B4B

Packaging 3 - 33 - B4B

Packaging 3 - 34 - B4B

Packaging 3 - 35 - B4B

Packaging 3 - 36 - B4B

DAS

28

9-89

140 QC 21 - FG

1 pcs

9/30/19

0.00 0.00

QC 21 - FG - 21

QC 21 - FG - 70

QC 21 - SA - 53

DAS

21

9-89

OCT 02 2019

Part Op 100 - Assemble as per drawing. See note 2,3,4, and 5.

Descriptions: **110** - (QC5- Inspect part completeness to step on W/O)

120 - 1-Load test as per drawing sheet 15. 2-Engrave -11 as per drawing sheet 11 note 1 using MARKTRONIC engraver.

125 - QC5- Inspect part completeness to step on W/O

130 - The tool must be packaged with a desiccant bag into a tight fitting sealed plastic bag as per DWG.

140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
10164	LG. Pistol Case, Plastic	1 Ea (1 ea)	100-Small Fab -	
60 20625A914	Dial Indicator Attchmnt Agd-2 Dial	1 Ea (1 ea)	100-Small Fab -	5151056
45 5416K41	SS Hose Clamp 3.5" Dia.	1 Ea (1 ea)	100-Small Fab -	5131311
62 90108A417	Flat Washer 3/8" Plated	2 Ea (2 ea)	100-Small Fab -	5044125
70 91259A583	Shoulder Screw 5/16" Shoulder Dia, 1" L Shoulder, 1/4"-20 Thread	1 Ea (1 ea)	100-Small Fab -	5044121
54 92845A245	18-8 Ss Extended (Dog) Point Socket Set Screw 10-24 Thread, 1/2" Length	2 Ea (2 ea)	100-Small Fab -	5131313
56 93839A815	Hex Nut 3/8-24 Unf	2 Ea (2 ea)	100-Small Fab -	5044124
58 97135A210	Nylon Lock Nut, 1/4-20	1 Ea (1 ea)	100-Small Fab -	5044120
43 98404A250	Quick Release Pin, Ø5/16 X 1	1 Ea (1 ea)	100-Small Fab -	5175979
42 98404A959	Quick Release Pin, Ø1/4 X 1	1 Ea (1 ea)	100-Small Fab -	5175981
78 AGD-2	1" Dial Indicator 0" to 1" Range	1 Ea (1 ea)	100-Small Fab -	5175993
145 B RBT18520-1	Lift Device Frame	1 pcs (1 ea)	100-Small Fab -	5131316
145 B RBT18520-11A	Weight Assembly	1 pcs (1 ea)	100-Small Fab -	5132092
146 RBT18520-15	Clevis Bracket	1 pcs (1 ea)	100-Small Fab -	5189432
146 RBT18520-16	Indicator Bracket	1 pcs (1 ea)	100-Small Fab -	5207252
145 B RBT18520-5	Weldment	1 pcs (1 ea)	100-Small Fab -	5206724
146 RBT18520-7	Pivot Bar Weldment	1 pcs (1 ea)	100-Small Fab -	5194300
145 B RBT18520-9A	Extension Assembly	2 pcs (2 ea)	100-Small Fab -	5194499
				5177188

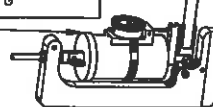
Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Small Fab - 1	10164	1	2	0
	20625A914	1	4	0
	5416K41	1	14	0
	90108A417	2	80	0
	91259A583	1	7	0
	92845A245	2	13	0
	93839A815	2	39	0
	97135A210	1	24	0
	98404A250	1	9	0
	98404A959	1	4	0
	AGD-2	1	2	0
	RBT18520-1	1	5	0
	RBT18520-11A	1	4	0
	RBT18520-15	1	4	0
	RBT18520-16	1	4	0
	RBT18520-5	1	4	0
	RBT18520-7	1	4	0
	RBT18520-9A	2	5	0

Part Specifications

Specifications could not be found.

Plex 9/12/19 1:10 PM Dart.lajeunesse.marie



1909-12
HCS
[TS]

NOTE:
1) CALIBRATED UPON CUSTOMER REQUEST.
2) APPLY RED THREADLOCKER LOCITITE 283/262 ON THREADS OF ITEM -12 THEN ASSEMBLE WITH ITEM -12A AND REMOVE EXCESS
3) TORQUE ITEM -12A TO 60-85 IN-LBS
4) INSTALL ITEM -17 HAND TIGHT
5) THE TOOL ASSY MUST BE PACKAGED WITH A DESICCANT BAG INTO A TIGHT FITTING SEALED PLASTIC BAG

ASST CITY	ASST CITY	ASST CITY	UNIT	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PQ.
			-1	1	FRAME	6061 T7075	2
			-3	1	TOP ROLL TAB	1018 HUBBARD CR	3
			-3	1	TOP ROLL WELDMENT		4
			-5A	1	ALL THREAD	STEEL	5
			-6	2	FLAT NUT	STEEL	1
			-6A	2	FLAT WASHER	STEEL	1
			-7	1	PIVOT BAR WELDMENT		6
			-7A	1	PIVOT BAR TAB	W18 HUBBARD CR	7
			-8	1	TUBE	A513 TYPE S DOM TUBING	8
			-9	1	EXTENSION	A513 TYPE S DOM TUBING	9
			-9A	2	EXTENSION ASSEMBLY		10
			-10	1	SOCKET HEAD SET SCREW	STEEL	10 & 12
			-11	1	WASHER	BRASS 360	11
			-11A	1	WASHER ASSEMBLY		12
			-12	1	SOCKET HEAD SHOULDER BOLT	STEEL	1
			-12A	1	INTON LOCK NUT	STEEL	1
			-13	1	QUICK RELEASE PIN	6011A X 1 (MCMaster#9904A4599)	1
			-14	1	QUICK RELEASE PIN	6051 X 1 (MCMaster#9904A4250)	1
			-15	1	CLAMP BRACKET	6061 T7075	13
			-16	1	INDICATOR BRACKET	6061 T7075	14
			-17	2	SOCKET HEAD SET SCREW (DOG POINT)	#10-24 X 1/2 (MCMaster-CARR #929A3A26)	1
			-18	1	HOSE CLAMP	605-1716 TO 604 X 1/2 (MCMaster-CARR #5016241)	1
			-19	1	1 IN. DIAL INDICATOR	(MCMaster#20715A99) Δ	15
			-20	1	FLAT BASE FOR DIAL INDICATOR		1
			-21	1	LARGE PISTOL CASE	PLASTIC	N/A
			-22	1	PISTOL CASE		N/A

[illegible]

Entered: _____ Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐



Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Cross tube ☐ Eng. (Non-AW) ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Finishing ☐ Rec/Store/Packaging ☐	Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐																																																																								
Date: _____ Sequence #: _____		QTY Affected: _____																																																																									
Description Work Order Deviation		Disposition																																																																									
Root Cause <table style="width: 100%;"> <tr> <td>Operator</td><td>☐</td> </tr> <tr> <td>Manufacturing Process</td><td>☐</td> </tr> <tr> <td>Equip/Tooling</td><td>☐</td> </tr> <tr> <td>Handling/Preservation</td><td>☐</td> </tr> <tr> <td>Material</td><td>☐</td> </tr> <tr> <td>Product Improvement</td><td>☐</td> </tr> <tr> <td>Process Improvement</td><td>☐</td> </tr> <tr> <td>Human Factors</td><td>☐</td> </tr> </table>		Operator	☐	Manufacturing Process	☐	Equip/Tooling	☐	Handling/Preservation	☐	Material	☐	Product Improvement	☐	Process Improvement	☐	Human Factors	☐	FAULT CATEGORY <table style="width: 100%;"> <tr> <td>Pressure/Forced</td><td>☐</td> <td>Contamination</td><td>☐</td> <td>Power Loss/Surge</td><td>☐</td> <td>Positioned Wrong</td><td>☐</td> </tr> <tr> <td>Bending</td><td>☐</td> <td>Misaligned/off center</td><td>☐</td> <td>Folio/Program</td><td>☐</td> <td>Outside Tolerance</td><td>☐</td> </tr> <tr> <td>Crushing</td><td>☐</td> <td>BOM/Route</td><td>☐</td> <td>Grain Direction</td><td>☐</td> <td>Drawing</td><td>☐</td> </tr> <tr> <td>Cracks</td><td>☐</td> <td>Broken/Damage/Defect</td><td>☐</td> <td>Weld</td><td>☐</td> <td>Finish</td><td>☐</td> </tr> <tr> <td>Crimp/Kink/Ripple/Wave/Twist</td><td>☐</td> <td>Incomplete/Unclear Instructions</td><td>☐</td> <td>Wrong Stock Pulled</td><td>☐</td> <td>Part Lost/Missing</td><td>☐</td> </tr> <tr> <td>Marks/Chatter</td><td>☐</td> <td>Drill Holes</td><td>☐</td> <td>Out of Sequence</td><td>☐</td> <td>Misread</td><td>☐</td> </tr> <tr> <td>Mislabeled</td><td>☐</td> <td>Fit/Function</td><td>☐</td> <td>Off-set/Set-up</td><td>☐</td> <td></td><td></td> </tr> </table>		Pressure/Forced	☐	Contamination	☐	Power Loss/Surge	☐	Positioned Wrong	☐	Bending	☐	Misaligned/off center	☐	Folio/Program	☐	Outside Tolerance	☐	Crushing	☐	BOM/Route	☐	Grain Direction	☐	Drawing	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Finish	☐	Crimp/Kink/Ripple/Wave/Twist	☐	Incomplete/Unclear Instructions	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐	Marks/Chatter	☐	Drill Holes	☐	Out of Sequence	☐	Misread	☐	Mislabeled	☐	Fit/Function	☐	Off-set/Set-up	☐		
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		Lead hand / Supervisor _____																																																																									
		QC / QA Coordinator _____																																																																									



Chicago Dial Indicator Co.
1372 Redeker Road
Des Plaines, IL 60016
ISO Registered Firm

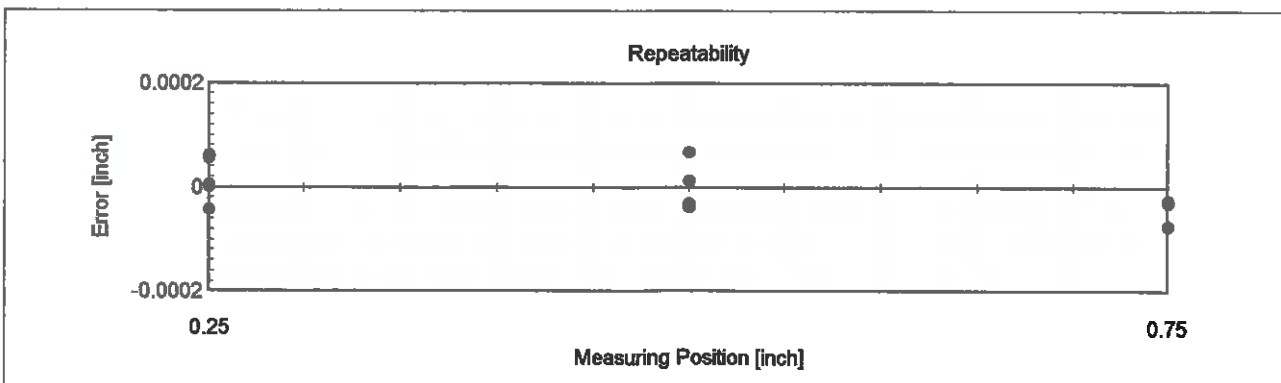
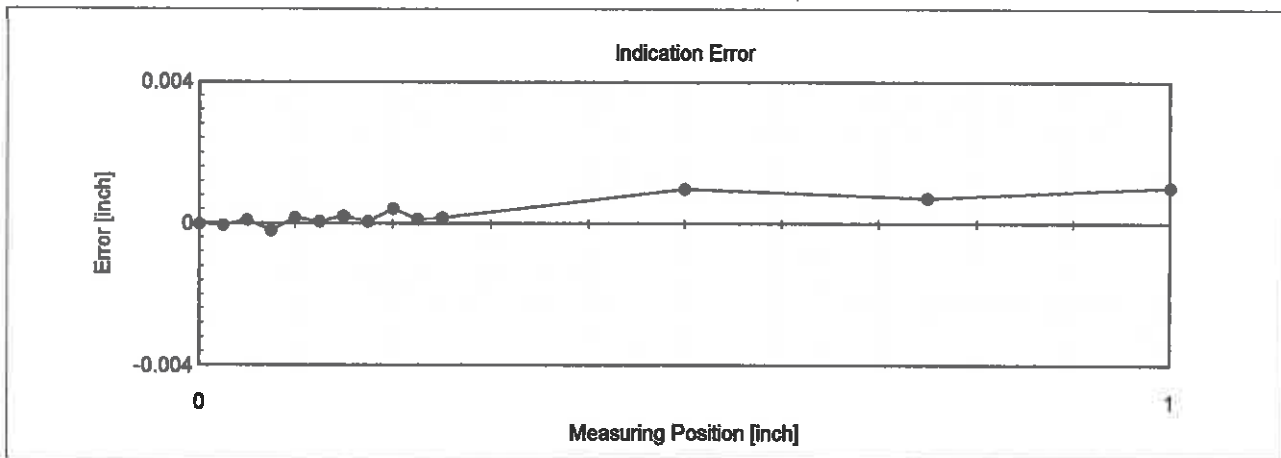
Factory Certificate of Calibration

Model No.	26104B	Name of Inspection Standard	CDI Mechanical Standard
Serial No.	182777554	Unit	inch
Certificate No.	70193	Scale Interval	0.001 inch
		Measuring Range	1 inch
		Reference Point	0 inch
		End Point	1 inch

N.I.S.T. No. 821/268795-03

Inspection Item Name	Result	Permissible Value	Judgment
First 2-1/3 Revolutions	+0.0004074 inch	± 0.001 inch	GO
First 10 Revolutions	+0.0010123 inch	± 0.002 inch	GO
First 20 Revolutions	_____	_____	N/A
Hysteresis	_____	_____	N/A
Repeatability	-0.0000748 inch	± 0.0002 inch	GO

Inspection Item Name	Judgment
Inspection of Function and Appearance	GO



Repeatability is taken at three positions, with five readings at each position.

Phone: 847-827-7186
Fax: 847-827-0478
Website: www.dialindicator.com

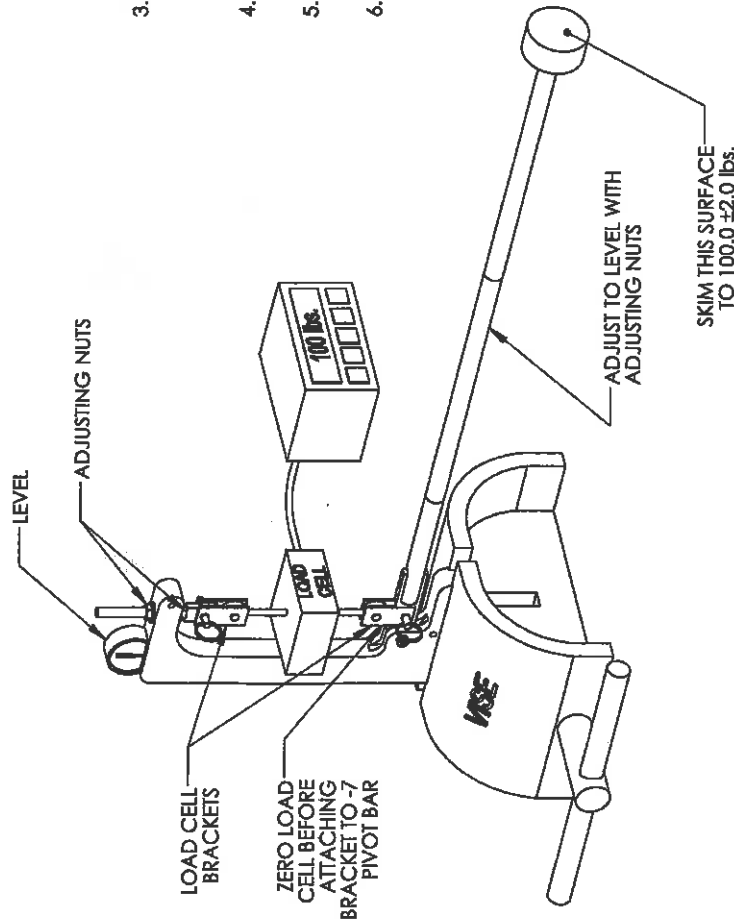
Date _____
Put into service date, provided by end user

Signature *Maria C.*

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TESTING PROCEDURES:

1. CLAMP UNIT IN VISE AS SHOWN, BE SURE UNIT IS LEVEL.
2. ATTACH THE LOAD CELL TO THE TOP ADJUSTING SCREW WITH BRACKETS AND SCREWS. MAKE SURE THAT THE LOAD CELL IS ALIGNED WITH THE ADJUSTING SCREW. ATTACH THE BOTTOM BRACKETS TO THE LOAD CELL, BUT DO NOT ATTACH THE BRACKETS TO THE -7 PIVOT BAR. PLUG THE LOAD CELL INTO THE DISPLAY AND PROPERLY PROGRAM THE DISPLAY. BE SURE TO ZERO THE LOAD CELL BEFORE CONTINUING.
3. ATTACH THE LOAD CELL BOTTOM BRACKETS WITH -14 PIN TO THE -7 PIVOT BAR. BE SURE THAT THE LOAD CELL IS ALIGNED WITH THE CENTER LINE OF UNIT.
4. ATTACH TWO -9A EXTENSIONS AND ONE -11A WEIGHT ASSEMBLY AS SHOWN.
5. LEVEL -9A EXTENSION ASSEMBLIES AND WEIGHT BY ADJUSTING THE TOP BOLT ADJUSTING NUTS.
6. SKIM THE FRONT FACE OF -11 BRASS WEIGHT UNTIL THE LOAD CELL REGISTERS 100.0 $\pm$ 2.0 lbs. THE -9A EXTENSION ASSEMBLIES MUST REMAIN LEVEL THROUGH THIS PROCESS. WHEN -11 HAS REACHED ITS PROPER WEIGHT, THE UNIT IS CALIBRATED. BE SURE TO ENGRAVE THE PROPER INFORMATION ON THE -11 BRASS WEIGHT.



DART
AEROSPACE

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TITLE		M/R DAMPER LOAD TEST DEVICE	
REV	Q	WEIGHT TEST 1 OF 1	15 OF 17
DATE	8/17/2000	SHEET	
SCALE	N/A		
DWG NO.	RBT18520		